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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

VIEAUX, GARY

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 09/10/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/894,233

Applicant(s)

OKAZAKI ET AL.

Examiner

Gary C. Vieaux

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 8, 9 and 17-34 is/are rejected.
- 7) ☒ Claim(s) 2-7 and 10-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 08/607,687.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3. 8/10/01 and 1/22/02
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Specification

The preliminary amendment, filed June 27, 2001, has been entered and made of
5 record.

Claim Objections

Claims 8, 27 and 31 are objected to because of the following informalities:

Regarding claim 8, the final line on page 70 contains the grammatical error of "... via the
network by the another user." Regarding claims 27 and 31, the word "permitting" is
10 spelled incorrectly. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

15 (a) A patent may not be obtained though the invention is not identically disclosed or described as set
forth in section 102 of this title, if the differences between the subject matter sought to be patented and
the prior art are such that the subject matter as a whole would have been obvious at the time the
invention was made to a person having ordinary skill in the art to which said subject matter pertains.
Patentability shall not be negated by the manner in which the invention was made.

20 **Claims 1, 8, 9, 17-24, 26-28, 30-32 and 34** are rejected under 35 U.S.C. 103(a)
as being unpatentable over Conway (US #5,444,476), in view of Bates et al. (US
#5,515,491) and Takahashi (US #5,574,901.)

Regarding claim 1, Conway teaches a camera apparatus control system
25 comprising a camera apparatus capable of being operated via a network in operation
which is at least one of panning, tilting and zooming of the camera apparatus (Fig. 7,

col. 9 lines 19-55), and in which a current image acquired by the camera apparatus is outputted to at least one user via the network (fig. 7 indicators 26e, 28e', 32e, 32e'.)

Conway also teaches managing means for arbitration between users simultaneously attempting to position a camera (col. 9 lines 46-55), which includes either giving first

5 priority to the local user or awarding control on a first-come-first-serve basis (col. 10 lines 9-17), which inherently necessitates management information relating to whether a camera is in use.

However, Conway does not directly teach managing means for managing the operation on the basis of first and second management information stored in a table
10 where the first management information indicates limitation information relating to the operation for each user and the second management information indicates whether or not the camera apparatus is operated by a user, wherein said managing means permits a user, who is not limited from performing operation via the network by the first management information, to operate the camera apparatus and receive a current image
15 acquired by the camera apparatus if the second management information indicates that the camera apparatus is not being operated by another user, and said managing means prohibits the user to operate the camera apparatus, and permits the user to have access to the camera apparatus for receiving a current image acquired by the camera apparatus if the second management information indicates that the camera apparatus is
20 operated via the network by another user.

Nevertheless, one of ordinary skill in the art of networks faced with the problem of managing user limitations would look to the solutions of others faced managing user

limitation problems within a similar network. Two such solutions include the use of access rights to limit a user's ability to access or manipulate an object within a network.

First, Bates (US #5,515,491) teaches the concurrent access of a shared data object via a network, which can be further restricted by limiting to its users to read-only rights or

5 granting some rights to manipulate or change the object (col. 1 lines 51-67.) Bates also teaches the user interface including a video monitor under the control of the user's local workstation, through which views of the shared data object are displayed, with the

interface being supported by software allowing multiple simultaneous access to a data object with the right to manipulate the contents (col. 2 lines 1-10.) Second, Takahashi

10 (US #5,574,901) teaches managing means for managing the use of a data object on the basis of management information stored in a table (figs. 1, and 3-6) where management information indicates limitation information relating to the use of the data object for each user (col. 1 line 48 – col. 2 line 18), wherein said managing means permits a user, who is not limited from performing operation on the data object (read and/or write) via the

15 network by the management information, to both view and manipulate the data object (fig. 1, col. 2 lines 5-18), and said managing means prohibits the user to manipulate the data object via the network, if the user is limited to only viewing the data object (read only) by the management information (fig. 1, col. 2 lines 5-18.) It is also noted that

Takahashi teaches these access rights as a way to control access to a data object by

20 granting full access to view and manipulate the data object, or by granting limited access to protect against manipulation of the data object while still allowing the data object to be viewed by those the data concerns (col. 1 line 64 – col. 2 line 18.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teachings of arbitration of use within a simultaneously shared network data object by Bates, and the teachings of managing and limiting user access (view or view/manipulate) of a shared network data object by Takahashi, with
5 the camera apparatus control system as taught by Conway, to create a camera apparatus control system capable of being operated via a network in operation which is at least one of panning, tilting and zooming of the camera apparatus ('476 col. 9 lines 39-46); and

managing means for managing the operation (user arbitration '476 col. 9 lines
10 50-55) on the basis of first (view only or view/manipulate access rights '901 col. 2 lines 5-11 and '491 col. 1 lines 51-67) and second management information (simultaneous attempts to use '476 col. 10 lines 9-17) stored in a table (by correlating information similar to '901 fig. 1) where the first management information indicates limitation information relating to the operation for each user and the second management
15 information indicates whether or not the camera apparatus is operated by a user,

wherein said managing means permits a user, who is not limited from performing operation via the network by the first management information (view and manipulate access rights '491 col. 1 lines 61-63), to operate the camera apparatus and receive a current image acquired by the camera apparatus (simultaneous shared access '491 col.
20 2 lines 1-4) if the second management information indicates that the camera apparatus is not being operated by another user (user arbitration '476 col. 9 lines 50-55), and

said managing means prohibits the user to operate the camera apparatus, and permits the user to have access to the camera apparatus for receiving a current image acquired by the camera apparatus if the second management information indicates that the camera apparatus is operated via the network by another user (simultaneous
5 shared access '491 col. 2 lines 1-4 and user arbitration '476 col. 9 lines 50-55.)

One of ordinary skill in the art at the time the invention was made would be motivated to combine these teachings to create a camera apparatus control system which adjudicates camera use based on a combination of user limitations and in-use arbitration; in order to have a system in which designated group members on the
10 network are allowed to manipulate a camera's view and the image it captures, or alternatively, are prohibited from effecting camera views which may result in images of a confidential manner (either location information derived by panning a background, or document information observed by moving the camera to access additional information desired to be kept secret), while still successfully arbitrating simultaneous use requests
15 among group members of the network designated for camera use.

Regarding claim 8, Conway teaches a control method for a camera apparatus capable of being operated via a network, comprising the steps of controlling operation via the network of the camera apparatus for each user where the operation is at least one of panning, tilting and zooming of the camera apparatus (Fig. 7, col. 9 lines 19-55);
20 setting limitation information for indicating whether or not the camera apparatus is operated by a user (inherent to determine the necessity for arbitration, col. 9 lines 50-55.) Conway does not directly teach setting first limitation information for limiting

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operation via the network of the camera apparatus for each user where the operation is at least one of panning, tilting and zooming of the camera apparatus; setting second limitation information for indicating whether or not the camera apparatus is operated by a user; and managing the operation by a user who receives a current image acquired by the camera apparatus on the basis of the set first and second limitation information, wherein in the managing step, one of the user, who is not limited from performing operation via the network by the first limitation information, can obtain permission to operate the camera apparatus and receive a current image acquired by the camera apparatus if the second limitation information indicates that the camera apparatus is not being operated by another user, and in the managing step, the one of the user can not obtain permission to operate the camera apparatus and can obtain permission to have access to the camera apparatus for receiving a current image acquired by the camera apparatus if the second management information indicates that the camera apparatus is operated via the network by the another user.

Nevertheless, one of ordinary skill in the art of networks faced with the problem of managing user limitations would look to the solutions of others faced managing user limitation problems within a similar network. Two such solutions include the use of access rights to limit a user's ability to access or manipulate an object within a network. First, Bates (US #5,515,491) teaches the concurrent access of a shared data object via a network, which can be further restricted by limiting to its users to read-only rights or granting some rights to manipulate or change the object (col. 1 lines 51-67.) Bates also teaches the user interface including a video monitor under the control of the user's local

workstation, through which views of the shared data object are displayed, with the interface being supported by software allowing multiple simultaneous access to a data object with the right to manipulate the contents (col. 2 lines 1-10.) Second, Takahashi (US #5,574,901) teaches managing means for managing the use of a data object on the basis of management information stored in a table (figs. 1, and 3-6) where management information indicates limitation information relating to the use of the data object for each user (col. 1 line 48 – col. 2 line 18), wherein said managing means permits a user, who is not limited from performing operation (read and/or write) on the data object via the network by the management information, to both view and manipulate the data object (fig. 1, col. 2 lines 5-18), and said managing means prohibits the user to manipulate the data object via the network, if the user is limited to only viewing the data object (read only) by the management information (fig. 1, col. 2 lines 5-18.) It is also noted that Takahashi teaches these access rights as a way to control access to a data object by granting full access to view and manipulate the data object, or by granting limited access to protect against manipulation of the data object while still allowing the data object to be viewed by those the data concerns (col. 1 line 64 – col. 2 line 18.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teachings of arbitration of use within a simultaneously shared network data object by Bates, and the teachings of managing and limiting user access (view or view/manipulate) of a shared network data object by Takahashi, with the control method for a camera apparatus capable of being operated via a network as

taught by Conway, to create a control method for a camera apparatus capable of being operated via a network, comprising the steps of:

setting first limitation information (view only or view/manipulate access rights '901 col. 2 lines 5-11 and '491 col. 1 lines 51-67) for limiting operation via the network of the camera apparatus for each user where the operation is at least one of panning, tilting and zooming of the camera apparatus ('476 fig. 7, col. 9 lines 19-46);

setting second limitation information (simultaneous attempts to use '476 col. 10 lines 9-17) for indicating whether or not the camera apparatus is operated by a user; and

managing the operation by a user who receives a current image acquired by the camera apparatus on the basis of the set first and second limitation information ('476 col. 9 line 39 – col. 10 line 55),

wherein in the managing step, one of the user, who is not limited from performing operation via the network by the first limitation information (view and manipulate access rights '491 col. 1 lines 61-63), can obtain permission to operate the camera apparatus (simultaneous shared access '491 col. 2 lines 1-4) and receive a current image acquired by the camera apparatus if the second limitation information indicates that the camera apparatus is not being operated by another user (user arbitration '476 col. 9 lines 50-55), and

in the managing step, the one of the user can not obtain permission to operate the camera apparatus and can obtain permission to have access to the camera apparatus for receiving a current image acquired by the camera apparatus (view only

access rights '491 col. 1 lines 61-63) if the second management information indicates that the camera apparatus is operated via the network by the another user ('491 col. 1 lines 52-57.)

One of ordinary skill in the art at the time the invention was made would be
5 motivated to combine these teachings to create a control method for a camera
apparatus which adjudicates camera use based on a combination of user limitations
and in-use arbitration; in order to have a system in which designated group members on
the network are allowed to manipulate a camera's view and the image it captures, or
alternatively, are prohibited from effecting camera views which may result in images of a
10 confidential manner (either location information derived by panning a background, or
document information observed by moving the camera to access additional information
desired to be kept secret), while still successfully arbitrating simultaneous use requests
among group members of the network designated for camera use.

Regarding claim 9, Conway, Bates, and Takahashi teach all of the limitations of
15 claim 9 (see the 103(a) rejection to claim 8 supra), except a direct teaching of
requesting remote operation of the camera apparatus via the network in accordance
with a designation from the user and the management information; and controlling an
action of the camera apparatus on the basis of the requested remote operation and the
set first limitation information. However, Conway does teach requesting remote
20 operation of the camera apparatus via the network in accordance with a designation
from the user; and controlling an action of the camera apparatus on the basis of the
requested remote operation ('476 col. 9 lines 66 – col. 10 line 18.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow for the requesting and controlling of the remote operation of the camera apparatus via the network, by way of placing the pointer within the displayed video image as taught by Conway, when directing the camera apparatus control system, under limitation of the management information, as taught by Conway, Bates, and Takahashi. One of ordinary skill in the art at the time the invention was made would be motivated to include these operational parameters in order to determine a method to distribute control of a camera; whereby when more than one pointer is placed on the respective displayed images, if the requesting user is permitted to perform an operation of the camera by the first management information (view and manipulate), the requesting user will also be allowed to control an action of the camera, if the user additionally meets a request tie-breaking protocol, such as priority to the local user or first-come-first serve ('476 col. 10 lines 9-18.)

Regarding claim 17, Conway, Bates, and Takahashi teach all of the limitations of claim 17 (see the 103(a) rejection to claim 1 supra), except for a direct teaching wherein the first management information contains providing information which indicates permission/prohibition for receiving an image provided by the camera apparatus for each user, and said managing means manages sending an image provided by the camera apparatus to the user based on the providing information. However, Takahashi does teach management information that indicates permission/prohibition for receiving access to (viewing) a data object for each user (fig. 1 indicator 1213, col. 1 line 64 – col. 2 line 4; or fig. 1 indicators 1214 and 1215, col. 2 lines 5-18, for a group equaling one

user member or one non-member.) It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply access permission/prohibition as taught by Takahashi, with the camera apparatus control system as taught by Conway, Bates, and Takahashi. One of ordinary skill in the art at the time the invention was made would be motivated to apply this teaching in order to limit an individual user's ability to view a particular image generated by a particular camera, as in the case where a user's identity or location is desired to be kept secret from other users.

Regarding claim 18, Conway, Bates, and Takahashi teach all of the limitations of claim 17 (see the 103(a) rejection to claim 1 supra), except for a direct teaching wherein the first management information contains providing information which indicates permission/prohibition for receiving sound provided by a microphone equipped for the camera apparatus for each user, and said managing means manages sending sound provided by the microphone to the user based on the providing information. However, the camera apparatus control system of Conway teaches interface components to transmit and receive audio, as well as video, from the sites (col. 3 lines 62-65.) It would have been obvious to one of ordinary skill in the art at the time the invention was made to fashion the audio as taught by Conway, to function similar to the operation of the camera employed within the camera apparatus control system as taught by Conway, Bates, and Takahashi. One of ordinary skill in the art at the time the invention was made would be motivated to control access to sound for each user (hear/not hear) as a way to limit users designated as strict observers from participating, or as a way to

prevent users from hearing sounds or conversations occurring at a remote location, which the remote location user does not want heard by other locations.

Regarding claim 19, Conway teaches a control system controlling a camera apparatus that is operated via a network in operation where the operation is at least one of panning, tilting and zooming of the camera apparatus (Fig. 7, col. 9 lines 19-55), output means for outputting a current image acquired by the camera apparatus to at least one user via the network (fig. 7 indicators 26e, 28e', 32e, 32e'); and control means for controlling an action of the camera apparatus via the network corresponding to the user who receives the current image and requires the operation, (Fig. 7 indicators 35e, 36e, 37e, and 35e', 36e', 37e', col. 9 lines 19-55.) Conway also teaches managing means for arbitration between users simultaneously attempting to position a camera (col. 9 lines 46-55), which includes either giving first priority to the local user or awarding control on a first-come-first-serve basis (col. 10 lines 9-17), which inherently necessitates management information relating to whether a camera is in use.

However, Conway does not directly teach managing means for managing first and second management information stored in a table where the first management information defines limits of the operation for each user and the second management information indicates whether or not the camera apparatus is operated by a user; and control means for controlling an action of the camera apparatus within the limits of the operation via the network corresponding to the user who receives the current image and requires the operation, wherein said control means permits a user, who is not limited from performing operation by the first management information, to operate the camera

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apparatus and receive the current image if the second management information indicates that the camera apparatus is not being operated by another user, and said control means prohibits the user to operate the camera apparatus, and permits the user to have access to the camera apparatus for receiving the current image if the second
5 management information indicates that the camera apparatus is operated via the network by another user.

Nevertheless, one of ordinary skill in the art of networks faced with the problem of controlling and managing user limitations would look to the solutions of others faced controlling and managing user limitation problems within a similar network. Two such
10 solutions include the use of access rights to limit a user's ability to access or manipulate an object within a network. First, Bates (US #5,515,491) teaches the concurrent access of a shared data object via a network, which can be further restricted by limiting to its users to read-only rights or granting some rights to manipulate or change the object (col. 1 lines 51-67.) Bates also teaches the user interface including a video monitor
15 under the control of the user's local workstation, through which views of the shared data object are displayed, with the interface being supported by software allowing multiple simultaneous access to a data object with the right to manipulate the contents (col. 2 lines 1-10.) Second, Takahashi (US #5,574,901) teaches managing means for managing the use of a data object on the basis of management information stored in a
20 table (figs. 1, and 3-6) where management information indicates limitation information relating to the use of the data object for each user (col. 1 line 48 – col. 2 line 18), wherein said managing means permits a user, who is not limited from performing

operation (read and/or write) on the data object via the network by the management information, to both view and manipulate the data object (fig. 1, col. 2 lines 5-18), and said managing means prohibits the user to manipulate the data object via the network, if the user is limited to only viewing the data object (read only) by the management information (fig. 1, col. 2 lines 5-18.) It is also noted that Takahashi teaches these access rights as a way to control access to a data object by granting full access to view and manipulate the data object, or by granting limited access to protect against manipulation of the data object while still allowing the data object to be viewed by those the data concerns (col. 1 line 64 – col. 2 line 18.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teachings of arbitration of use within a simultaneously shared network data object by Bates, and the teachings of managing and limiting user access (view or view/manipulate) of a shared network data object by Takahashi, with the control system controlling a camera apparatus as taught by Conway.

One of ordinary skill in the art at the time the invention was made would be motivated to combine these teachings to create a control system controlling a camera apparatus which adjudicates camera use based on a combination of user limitations and in-use arbitration; in order to have a system in which designated group members on the network are allowed to manipulate a camera's view and the image it captures, or alternatively, are prohibited from effecting camera views which may result in images of a confidential manner (either location information derived by panning a background, or document information observed by moving the camera to access additional information

desired to be kept secret), while still successfully arbitrating simultaneous use requests among group members of the network designated for camera use.

Regarding claim 20, Conway teaches a control apparatus controlling a camera that includes control means for controlling an action of a connected camera based on a
5 received signal which requires operation of the connected camera through a network where the operation is at least one of panning, tilting and zooming (Fig. 7 indicators 35e, 36e, 37e, and 35e', 36e', 37e', col. 9 line 19 – col. 10 line 18.) Conway also teaches managing means for arbitration between users simultaneously attempting to position a camera (col. 9 lines 46-55), which includes either giving first priority to the
10 local user or awarding control on a first-come-first-serve basis (col. 10 lines 9-17), which inherently necessitates management information relating to whether a camera is in use.

However Conway does not directly teach managing means for managing the action of the connected camera based on first and second management information stored in a table where the first management information indicates limitation of the
15 operation for each user and the second management information indicates whether or not the camera apparatus is operated by a user, wherein said managing means permits a user, who is not limited from performing operation via the network by the first management information, to operate the camera apparatus and receive a current image acquired by the camera apparatus if the second management information indicates that
20 the camera apparatus is not being operated by another user, and said managing means prohibits the user to operate the camera apparatus, and permits the user to have access to the camera apparatus for receiving a current image acquired by the camera

apparatus if the second management information indicates that the camera apparatus is operated via the network by another user.

Nevertheless, one of ordinary skill in the art of networks faced with the problem of controlling and managing user limitations would look to the solutions of others faced

5 controlling and managing user limitation problems within a similar network. Two such solutions include the use of access rights to limit a user's ability to access or manipulate an object within a network. First, Bates (US #5,515,491) teaches the concurrent access of a shared data object via a network, which can be further restricted by limiting to its users to read-only rights or granting some rights to manipulate or change the object

10 (col. 1 lines 51-67.) Bates also teaches the user interface including a video monitor under the control of the user's local workstation, through which views of the shared data object are displayed, with the interface being supported by software allowing multiple simultaneous access to a data object with the right to manipulate the contents (col. 2 lines 1-10.) Second, Takahashi (US #5,574,901) teaches managing means for

15 managing the use of a data object on the basis of management information stored in a table (figs. 1, and 3-6) where management information indicates limitation information relating to the use of the data object for each user (col. 1 line 48 – col. 2 line 18), wherein said managing means permits a user, who is not limited from performing operation (read and/or write) on the data object via the network by the management

20 information, to both view and manipulate the data object (fig. 1, col. 2 lines 5-18), and said managing means prohibits the user to manipulate the data object via the network, if the user is limited to only viewing the data object (read only) by the management

information (fig. 1, col. 2 lines 5-18.) It is also noted that Takahashi teaches these access rights as a way to control access to a data object by granting full access to view and manipulate the data object, or by granting limited access to protect against manipulation of the data object while still allowing the data object to be viewed by those
5 the data concerns (col. 1 line 64 – col. 2 line 18.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teachings of arbitration of use within a simultaneously shared network data object by Bates, and the teachings of managing and limiting user access (view or view/manipulate) of a shared network data object by Takahashi, with
10 the control apparatus controlling a camera as taught by Conway.

One of ordinary skill in the art at the time the invention was made would be motivated to combine these teachings to create a control apparatus controlling a camera which adjudicates camera use based on a combination of user limitations and in-use arbitration; in order to have a system in which designated group members on the
15 network are allowed to manipulate a camera's view and the image it captures, or alternatively, are prohibited from effecting camera views which may result in images of a confidential manner (either location information derived by panning a background, or document information observed by moving the camera to access additional information desired to be kept secret), while still successfully arbitrating simultaneous use requests
20 among group members of the network designated for camera use.

Regarding claim 21, Conway teaches a control apparatus controlling a camera that includes control means for controlling an action of a connected camera based on a

received signal which requires operation of the connected camera through a network where the operation is at least one of panning, tilting and zooming (Fig. 7 indicators 35e, 36e, 37e, and 35e', 36e', 37e', col. 9 line 19 – col. 10 line 18.) output means for outputting a current image acquired by the camera apparatus to at least one user via
5 the network (fig. 7 indicators 26e, 28e', 32e, 32e'); and control means for controlling an action of the camera apparatus via the network corresponding to the user who receives the current image and requires the operation, (Fig. 7 indicators 35e, 36e, 37e, and 35e', 36e', 37e', col. 9 lines 19-55.) Conway also teaches managing means for arbitration between users simultaneously attempting to position a camera (col. 9 lines 46-55),
10 which includes either giving first priority to the local user or awarding control on a first-come-first-serve basis (col. 10 lines 9-17), which inherently necessitates management information relating to whether a camera is in use.

However, Conway does not directly teach managing means for managing first and second management information stored in a table where the first management
15 information defines limits of the operation for each user and the second management information indicates whether or not the connected camera is operated by a user; and control means for controlling an action of the connected camera within the limits of the operation via the network corresponding to the user who receives the current image and requires the operation, wherein said control means permits a user, who is not limited
20 from performing operation by the first management information, to operate the connected camera and receive the current image if the second management information indicates that the connected camera is not being operated by another user,

and said control means prohibits the user to operate the camera, and permits the user to have access to the camera for receiving the current image if the second management information indicates that the camera is operated via the network by another user.

Nevertheless, one of ordinary skill in the art of networks faced with the problem
5 of controlling and managing user limitations would look to the solutions of others faced
controlling and managing user limitation problems within a similar network. Two such
solutions include the use of access rights to limit a user's ability to access or manipulate
an object within a network. First, Bates (US #5,515,491) teaches the concurrent access
of a shared data object via a network, which can be further restricted by limiting to its
10 users to read-only rights or granting some rights to manipulate or change the object
(col. 1 lines 51-67.) Bates also teaches the user interface including a video monitor
under the control of the user's local workstation, through which views of the shared data
object are displayed, with the interface being supported by software allowing multiple
simultaneous access to a data object with the right to manipulate the contents (col. 2
15 lines 1-10.) Second, Takahashi (US #5,574,901) teaches managing means for
managing the use of a data object on the basis of management information stored in a
table (figs. 1, and 3-6) where management information indicates limitation information
relating to the use of the data object for each user (col. 1 line 48 – col. 2 line 18),
wherein said managing means permits a user, who is not limited from performing
20 operation (read and/or write) on the data object via the network by the management
information, to both view and manipulate the data object (fig. 1, col. 2 lines 5-18), and
said managing means prohibits the user to manipulate the data object via the network, if

the user is limited to only viewing the data object (read only) by the management information (fig. 1, col. 2 lines 5-18.) It is also noted that Takahashi teaches these access rights as a way to control access to a data object by granting full access to view and manipulate the data object, or by granting limited access to protect against
5 manipulation of the data object while still allowing the data object to be viewed by those the data concerns (col. 1 line 64 – col. 2 line 18.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teachings of arbitration of use within a simultaneously shared network data object by Bates, and the teachings of managing and limiting user
10 access (view or view/manipulate) of a shared network data object by Takahashi, with the control apparatus controlling a camera as taught by Conway.

One of ordinary skill in the art at the time the invention was made would be motivated to combine these teachings to create a control apparatus controlling a camera which adjudicates camera use based on a combination of user limitations and
15 in-use arbitration; in order to have a system in which designated group members on the network are allowed to manipulate a camera's view and the image it captures, or alternatively, are prohibited from effecting camera views which may result in images of a confidential manner (either location information derived by panning a background, or document information observed by moving the camera to access additional information
20 desired to be kept secret), while still successfully arbitrating simultaneous use requests among group members of the network designated for camera use.

Regarding claim 22, Conway teaches a control method for a camera apparatus which is operated via a network where the operation is at least one of panning, tilting and zooming of the camera apparatus (Fig. 7 indicators 35e, 36e, 37e, and 35e', 36e', 37e', col. 9 line 19 – col. 10 line 18), which includes outputting a current image acquired
5 by the camera apparatus to at least one user via the network (fig. 7 indicators 26e, 28e', 32e, 32e'); and controlling an action of the camera apparatus via the network corresponding to the user who receives the current image and requires the operation, (Fig. 7 indicators 35e, 36e, 37e, and 35e', 36e', 37e', col. 9 lines 19-55.) Conway also teaches managing means for arbitration between users simultaneously attempting to
10 position a camera (col. 9 lines 46-55), which includes either giving first priority to the local user or awarding control on a first-come-first-serve basis (col. 10 lines 9-17), which inherently necessitates management information relating to whether a camera is in use.

However, Conway does not directly teach managing first and second management information stored in a table where the first management information
15 defines limits of the operation for each user and the second management information indicates whether or not the camera apparatus is operated by a user; and controlling an action of the camera apparatus within the limits of the operation via the network corresponding to the user who receives the current image and requires the operation, wherein in the controlling step, a user, who is not limited from performing operation by
20 the first management information, is permitted to operate the camera apparatus and receive the current image if the second management information indicates that the camera apparatus is not being operated by another user, and the user is prohibited to

operate the camera apparatus, and is permitted to have access to the camera apparatus for receiving the current image if the second management information indicates that the camera apparatus is operated via the network by another user.

Nevertheless, one of ordinary skill in the art of networks faced with the problem
5 of controlling and managing user limitations would look to the solutions of others faced
controlling and managing user limitation problems within a similar network. Two such
solutions include the use of access rights to limit a user's ability to access or manipulate
an object within a network. First, Bates (US #5,515,491) teaches the concurrent access
of a shared data object via a network, which can be further restricted by limiting to its
10 users to read-only rights or granting some rights to manipulate or change the object
(col. 1 lines 51-67.) Bates also teaches the user interface including a video monitor
under the control of the user's local workstation, through which views of the shared data
object are displayed, with the interface being supported by software allowing multiple
simultaneous access to a data object with the right to manipulate the contents (col. 2
15 lines 1-10.) Second, Takahashi (US #5,574,901) teaches managing means for
managing the use of a data object on the basis of management information stored in a
table (figs. 1, and 3-6) where management information indicates limitation information
relating to the use of the data object for each user (col. 1 line 48 – col. 2 line18),
wherein said managing means permits a user, who is not limited from performing
20 operation (read and/or write) on the data object via the network by the management
information, to both view and manipulate the data object (fig. 1, col. 2 lines 5-18), and
said managing means prohibits the user to manipulate the data object via the network, if

the user is limited to only viewing the data object (read only) by the management information (fig. 1, col. 2 lines 5-18.) It is also noted that Takahashi teaches these access rights as a way to control access to a data object by granting full access to view and manipulate the data object, or by granting limited access to protect against

5 manipulation of the data object while still allowing the data object to be viewed by those the data concerns (col. 1 line 64 – col. 2 line 18.)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the teachings of arbitration of use within a simultaneously shared network data object by Bates, and the teachings of managing and limiting user
10 access (view or view/manipulate) of a shared network data object by Takahashi, with the control apparatus controlling a camera as taught by Conway.

One of ordinary skill in the art at the time the invention was made would be motivated to combine these teachings to create a control apparatus controlling a camera which adjudicates camera use based on a combination of user limitations and
15 in-use arbitration; in order to have a system in which designated group members on the network are allowed to manipulate a camera's view and the image it captures, or alternatively, are prohibited from effecting camera views which may result in images of a confidential manner (either location information derived by panning a background, or document information observed by moving the camera to access additional information
20 desired to be kept secret), while still successfully arbitrating simultaneous use requests among group members of the network designated for camera use.

Regarding claim 23, Conway teaches a control apparatus for controlling a camera connected to said apparatus, comprising: a controller (fig. 7 indicators 35e, 35e', 36e, 36e', 37e, and 37e'), arranged to control an action of the camera based on a received signal which requires an operation of the camera (col. 9 lines 39-55); and

5 management information which indicates whether the camera is operated by a user or not (col. 9 line 39 – col. 10 line 17, the function of arbitration inherently necessitates management information relating to whether a camera is in use), wherein said controller permits a user to operate the camera and receive a current image acquired by the camera if the camera is not being operated by another user, and said controller

10 prohibits the user to operate the camera (loss of use in an arbitration), and permits the user to have access to the camera for receiving a current image acquired by the camera if the management information indicates that the camera is operated via the network by another user (fig. 7 indicators 26e and 32e; col. 9 line 46 – col. 10 line 17.)

However, Conway does not teaches a memory, arranged to store first

15 management information which indicates limitation of operation of the camera for each user and second information which indicates whether the camera is operated by a user or not, wherein said controller permits a user, who is not limited from performing operation via a network by the first management information, to operate the camera and receive a current image acquired by the camera if the second management information

20 indicates that the camera is not being operated by another user, and said controller prohibits the user to operate the camera, and permits the user to have access to the camera for receiving a current image acquired by the camera if the second

management information indicates that the camera is operated via the network by another user. It is noted that Conway does teach a computer and a network interface employed in the control of the apparatus, which based on the operations of the apparatus of Conway, indicates the presence of memory space necessary to hold

5 status information during in-use arbitration via a network (col. 9 line 46 – col. 10 line 18.)

Nevertheless, one of ordinary skill in the art of networks faced with the problem of managing user limitations would look to the solutions of others faced managing user limitation problems within a similar network. Two such solutions include the use of access rights to limit a user's ability to access or manipulate an object within a network.

10 First, Bates (US #5,515,491) teaches the concurrent access of a shared data object via a network, which can be further restricted by limiting to its users to read-only rights or granting some rights to manipulate or change the object (col. 1 lines 51-67.) Bates also teaches the data object being stored in memory accessible over the network (col. 1 lines 43-46), with the user interface including a video monitor under the control of the
15 user's local workstation, through which views of the shared data object are displayed, and the interface being supported by software allowing multiple simultaneous access to a data object with the right to manipulate the contents (col. 2 lines 1-10.) Second, Takahashi (US #5,574,901) teaches managing the use of a data object on the basis of management information stored in a table (figs. 1, and 3-6) where management
20 information indicates limitation information relating to the use of the data object for each user (col. 1 line 48 – col. 2 line 18), wherein said managing means permits a user, who is not limited from performing operation (read and/or write) on the data object via the

network by the management information, to both view and manipulate the data object (fig. 1, col. 2 lines 5-18), and said managing means prohibits the user to manipulate the data object via the network, if the user is limited to only viewing the data object (read only) by the management information (fig. 1, col. 2 lines 5-18.) It is also noted that

5 Takahashi teaches these access rights as a way to control access to a data object by granting full access to view and manipulate the data object, or by granting limited access to protect against manipulation of the data object while still allowing the data object to be viewed by those the data concerns (col. 1 line 64 – col. 2 line 18.)

It would have been obvious to one of ordinary skill in the art at the time the invention
10 was made to apply the teachings of arbitration of use within a simultaneously shared network data object by Bates, and the teachings of managing and limiting user access (view or view/manipulate) of a shared network data object by Takahashi, with the control apparatus as taught by Conway, to create a control apparatus for controlling a camera connected to said apparatus, comprising:

15 a controller ('476 fig. 7 indicators 35e, 35e', 36e, 36e', 37e, and 37e'), arranged to control an action of the camera based on a received signal which requires an operation of the camera ('476 col. 9 lines 39-55); and

a memory ('491 col. 1 lines 43-46), arranged to store first management information which indicates limitation of operation of the camera for each user (view
20 only or view/manipulate access rights '901 col. 2 lines 5-11 and '491 col. 1 lines 51-67) and second information which indicates whether the camera is operated by a user or not (in-use arbitration '476 col. 9 lines 50-55),

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wherein said controller permits a user, who is not limited from performing operation via a network by the first management information (view and manipulate access rights '491 col. 1 lines 61-63), to operate the camera and receive a current image acquired by the camera apparatus (simultaneous shared access '491 col. 2 lines 1-4) if the second management information indicates that the camera is not being operated by another user (user arbitration '476 col. 9 lines 50-55), and

said controller prohibits the user to operate the camera, and permits the user to have access to the camera for receiving a current image acquired by the camera if the second management information indicates that the camera is operated via the network by another user (simultaneous shared access '491 col. 2 lines 1-4 and user arbitration '476 col. 9 lines 50-55.)

One of ordinary skill in the art at the time the invention was made would be motivated to combine these teachings to create an apparatus which treated access to a camera in a similar fashion to access to a data object; with some users having observation/read-only privileges, and where arbitration results upon attempts of concurrent use by those with manipulation rights.

Regarding claim 24, Conway, Bates, and Takahashi teach all of the limitations of claim 24 (see the 103(a) rejection to claim 23 supra), including a teaching by Conway wherein the operation of the camera includes at least one of panning, tilting or zooming operation of the camera (col. 9 28-29.)

Regarding claim 26, Conway, Bates, and Takahashi teach all of the limitations of claim 26 (see the 103(a) rejection to claim 23 supra), except for an explicit teaching wherein the first management information can be set in a unit of groups including plural users. However Takahashi teaches management information being set in a unit of groups including plural users ('901 col. 2 lines 5-18.) It would have been obvious to one of ordinary skill in the art at the time the invention was made to allow management information to be set in a unit of groups including plural users as taught by Takahashi, with the control apparatus as taught by Conway, Bates, and Takahashi. One of ordinary skill in the art at the time the invention was made would be motivated to allow management information to be set in a unit of groups including plural users, in order to be able to easily allocate access rights to the members of one group including plural users and deny rights to the members of another.

Regarding claims 27, 28, and 30, although the wording is different, the material is considered substantively equivalent to claims 23, 24, and 26, as discussed above.

Regarding claims 31, 32, and 34, although the wording is different, the material is considered substantively equivalent to claims 23, 24, and 26, as discussed above, except for the additional caveat of the claim limitations taking form within a computer program product comprising a computer readable medium storing a computer program code. Official Notice is taken that a program of instructions, executable by a machine and programmable directly into a machine or apparatus, are easily transferred to a computer program product; a concept which is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was

made to have transferred the program of instructions to a computer program product readable by machine in order to increase the portability of the product from machine to machine.

5 **Claims 25, 29, and 33** are rejected under 35 U.S.C. 103(a) as being unpatentable over Conway (US #5,444,476), in view of Bates et al. (US #5,515,491) and Takahashi (US #5,574,901), further in view of Hiramoto et al. (JP 406181539A – machine translation.)

10 Regarding claim 25, Conway, Bates, and Takahashi teach all the limitations of claim 25 (see the 103(a) rejection to claim 23 supra), except wherein the first management information includes a range of the operation of the camera for each user. Nevertheless, Hiramoto teaches restricting the range of a camera's mobility for privacy protection (Detailed Description ¶ 3.) It would have been obvious to one of ordinary skill in the art at the time the invention was made to limit the range of camera control as
15 taught by Hiramoto, with the control apparatus for controlling a camera as taught by Conway, Bates, and Takahashi. One of ordinary skill in the art at the time the invention was made would be motivated to limit the range of camera control available to a camera user in order to preserve the privacy of a predetermined area within the camera's full range. It would have been further obvious to one of ordinary skill in the art at the time
20 the invention was made to include a limit of the range of camera control as taught by Hiramoto, as part of the first management information for each user of the control apparatus as taught by Conway, Bates, and Takahashi. One of ordinary skill in the art

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at the time the invention was made would be motivated to include a limited range of camera operation within the first management information for a particular user, as another method to control a user's access to what can be viewed. It may be desirable to limit what can be viewed by a camera on a user by user basis, with the intention of preventing a user, who may be permitted to move a camera (to gain better view of a speaker or a document), from moving the camera beyond a previously prescribed area, in order to preserve the privacy of the regions beyond the prescribed area.

Regarding claim 29, although the wording is different, the material is considered substantively equivalent to claim 25, as discussed above.

Regarding claim 33, although the wording is different, the material is considered substantively equivalent to claim 25, as discussed above, except for the additional caveat of the claim limitations taking form within a computer program product comprising a computer readable medium storing a computer program code. Official Notice is taken that a program of instructions, executable by a machine and programmable directly into a machine or apparatus, are easily transferred to a computer program product; a concept which is well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have transferred the program of instructions to a computer program product readable by machine in order to increase the portability of the product from machine to machine.

Allowable Subject Matter

Claims 2-7, and 10-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Aldred et al. (US #5,649,105) discloses collaborative working in a network,
10 including teaching the use of tokens to control shared resources.

Bly et al. (US #5,008,853) discloses a multi-user collaborative system involving shared data objects, with associated access rights.

Smith (US #4,956,769) discloses administering access privileges for users as defined within data access tables.

15 Cortjens et al. (US #5,528,289) discloses a videoconferencing system with controllable cameras.

Fabris et al. (US #4,516,156) discloses a teleconferencing system with controllable cameras in terms of pan, tilt, zoom, and focus.

Toshikazu et al. (JP 05-122690 – machine translation) discloses use of a table to
20 manage access codes for each terminal of a network participating in a conference.

Toshikazu et al. (JP 06-112943 – machine translation) discloses a control process for meeting equipment within a network, including use of a table for access management purposes.

5 Toshikazu et al. (JP 06-133062 – machine translation) discloses operational control means for access requests to conference devices, which employs a table for management of access rights.

Tanigawa et al. (non-patent literature entitled “Personal Multimedia-multipoint teleconferencing system”) discloses teleconferencing token use to effect control and avoid collision of mediums.

10

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary C. Vieaux whose telephone number is 703-305-9573. The examiner can normally be reached on Monday - Friday, 8:00am - 4:00pm.

15 If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, Wendy Garber can be reached on (703) 305-4929. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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- 5 For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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